

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

**LISTING OF CLAIMS:**

1. (Currently Amended) A packaging apparatus that manufactures a package wherein foodstuff article to be packaged and an inert gas are sealed in a packaging material, comprising:

an introducing unit through which the article to be packaged and the gas are supplied to the packaging material formed in a tubular shape;

a first sealing mechanism that seals the tubular packaging material to manufacture a package containing the article and the gas; and

a control unit that is configured to adjust the temperature and amount of the gas in the sealed package[[;]] so that a prescribed thickness of the sealed package is achieved based upon the difference between the temperature of the outside air and the temperature of the gas by setting the packaging apparatus supplying the temperature of the gas in the packaging material at a temperature lower than that of the outside air when said first sealing mechanism seals the tubular package material,

the control unit being further configured to receive postprocessing information relating to a state of the package after the package is manufactured by the packaging apparatus and to perform a feedback control of the temperature of the gas in a subsequently manufactured package based on the postprocessing information and configured to adjust the thickness of the sealed package based upon the difference between the temperature of the outside air and the temperature of the gas, and the amount of the gas.

2. (Previously Presented) The packaging apparatus as recited in Claim 1, comprising:  
a gas temperature modifying unit that changes a temperature of a gas.
3. (Previously Presented) The packaging apparatus as recited in Claim 2, wherein  
the gas temperature modifying unit changes the temperature of the gas by changing  
the temperature of the article to be packaged.
4. (Previously Presented) The packaging apparatus as recited in Claim 2, wherein  
the gas temperature modifying unit changes the temperature of the gas by changing  
the temperature of the packaging material.
5. (Previously Presented) The packaging apparatus as recited in Claim 2, wherein  
the gas temperature modifying unit changes the temperature of the gas by changing  
the temperature of said introducing unit.
6. (Previously Presented) The packaging apparatus as recited in Claim 1, comprising:  
a forming unit that tubularly forms the packaging material; and  
a gas temperature modifying unit that changes the temperature of the gas by changing  
the temperature of said forming unit.

7-8. (Cancelled)

9. (Previously Presented) The packaging apparatus as recited in Claim 1, further comprising:

a pair of smoothing parts that smoothes a portion of the packaging material to be sealed, and a vicinity thereof.

10. (Previously Presented) The packaging apparatus as recited in Claim 1, further comprising:

a transporting unit that transports the tubular packaging material downward; and  
a second sealing unit that seals a longitudinal edge of the tubular packaging material, the longitudinal edge being parallel to the transport direction of the transported flexible packaging material, the direction in which the first sealing mechanism seals the tubular packaging material is perpendicular to the transport direction.

11. (Currently Amended) A packaging method for manufacturing a package wherein a food stuff article to be packaged and an inert gas are sealed in a packaging material, comprising steps of:

providing a tubular packaging material;  
supplying the article to be packaged in the tubular packaging material;  
supplying the gas in the tubular packaging material;  
sealing the tubular packaging material to manufacture a package containing the article and the gas;

changing adjusting a temperature and an amount of the gas supplied to the package before or after the supplying of the gas in the tubular packaging material so that a prescribed

thickness of the sealed package is achieved based upon the difference between the temperature of the outside air and the temperature of the gas; such that the gas has setting the temperature of the gas in the packaging material at a temperature lower than that of the outside air when the gas and the article to be packaged are sealed; [[and]] receiving postprocessing information relating to a state of the package after the package is manufactured; and

performing a feedback control of the temperature of the gas in a subsequently manufactured package based on the postprocessing information received

adjusting the thickness of the sealed package containing the article and the gas based upon the difference between the temperature of the outside air and the temperature of the gas, and the amount of the gas supplied to the package.

12. (Currently Amended) A packaging system, comprising:

a packaging apparatus that manufactures a package wherein a foodstuff article to be packaged and an inert gas are sealed in a packaging material, the packaging apparatus including

an introducing unit through which the article to be packaged and the gas are supplied to the packaging material formed in a tubular shape; and

a first sealing mechanism that seals the tubular packaging material to produce a package containing the article and the gas; and

a gas temperature modifying unit that changes adjusts the temperature and amount of the gas supplied to the package before the gas is sealed in the package so that a prescribed thickness of the sealed package is achieved based upon the difference between the temperature of the outside air and the temperature of the gas;

a postprocessing checking apparatus that performs postprocessing checking of the package; and

a control unit that is configured to wherein, set the temperature of the gas at has a temperature lower than that of the outside air when the gas and the article to be packaged are sealed and to perform a feedback control of said gas temperature modifying unit based on detection information produced by said postprocessing checking apparatus; and

~~the packaging system is configured to adjust the thickness of the sealed package containing the article and the gas based upon the difference between the temperature of the outside air and the temperature of the gas, and the amount of the gas supplied to the package.~~

13. (Original) The packaging system as recited in Claim 12, further comprising:

a thermal application unit that performs thermal application processing on the manufactured package.

14. (Original) The packaging system as recited in Claim 13, wherein said thermal application unit has a thermostatic chamber that warms the package.

15. (Original) The packaging system as recited in Claim 13, wherein said thermal application unit blows hot air onto the package.

16-17. (Cancelled)

18. (Currently Amended) The packaging system as recited in Claim 12, wherein  
Claim 16, further comprising:

[[a]] the control unit that is further configured to control said thermal application unit  
based on detection information produced by said postprocessing checking apparatus.

19. (Currently Amended) A packaging apparatus that manufactures a package  
wherein foodstuff article to be packaged and an inert gas are sealed in a packaging material,  
comprising:

an introducing unit through which the article to be packaged and the gas are supplied  
to the packaging material formed in a tubular shape;

a first sealing mechanism that seals the tubular packaging material to manufacture a  
package containing the article and the gas;

an outside air temperature acquisition unit that detects the temperature of the air  
outside the sealed package; and

an adjustment unit that sets the temperature of the gas based upon the outside air  
temperature detected by the outside air temperature acquisition unit, and sets the amount of  
the gas supplied to the package so that a prescribed thickness of the sealed package is  
achieved based upon the difference between the temperature of the outside air and the  
temperature of the gas,

the adjustment unit further receives postprocessing information relating to a state of  
the package after the package is manufactured and performs a feedback control of the  
temperature of the gas in a subsequently manufactured package based on the postprocessing  
information in order to adjust the thickness of the sealed package.